

WHAT IS CLAIMED IS:

1. A method of manufacturing a solid-state image sensing device comprising the steps of:

(a) preparing a wiring substrate mother board having a first face and a second face on the side opposite to said first face;
(b) mounting first electronic components over said first face of said wiring substrate mother board;

(c) encapsulating said first electronic components by using an encapsulation body;

(d) mounting second electronic components including image sensors over

said second face of said wiring substrate mother board; and
(e) joining a frame to said second face of said wiring substrate mother board so as to cover said second electronic components,

wherein said frame has a position adjustment pin for adjusting the position of said frame with said wiring substrate mother board,

wherein said wiring substrate mother board has a through hole into which said position adjustment pin is to be inserted, and

wherein said position adjustment pin and said through hole are provided outside a junction face between said frame and said wiring substrate mother board.

2. A method of manufacturing a solid-state image sensing

device according to claim 1, wherein said step (e) includes a sub-step of selectively coating a junction face of said frame with a bonding agent through a mask, and said sub-step of selectively coating a junction face of said frame with a bonding agent is carried out in such a way that said position adjustment pin of said frame is not coated with said bonding agent.

3. A method of manufacturing a solid-state image sensing device according to claim 1, wherein in said step (c), said encapsulation body is formed in such a way that said through hole of said wiring substrate mother board is avoided.

4. A method of manufacturing a solid-state image sensing device according to claim 1,

wherein said wiring substrate mother board has a plurality of module regions,

wherein said encapsulation body used in said step (c) is a batch encapsulation body for encapsulating said first electronic components in said module regions in the aggregate, and

wherein in said step (c), said batch encapsulation body is formed in such a way that said through hole of said wiring substrate mother board is avoided.

5. A method of manufacturing a solid-state image sensing device

according to claim 4, wherein in said step (c), a plurality of said batch encapsulation bodies is formed over said first face of said wiring substrate mother board with said batch encapsulation bodies being separated from each other.

6. A method of manufacturing a solid-state image sensing device according to claim 5, wherein a depression is formed in a portion of each of said batch encapsulation bodies.

7. A method of manufacturing a solid-state image sensing device according to claim 4, wherein in said step (c), said module regions are divided into a plurality of groups and a plurality of said first electronic components in each of said groups is encapsulated in the aggregate.

8. A method of manufacturing a solid-state image sensing device according to claim 7, wherein in said step (c), an encapsulation material is supplied to any particular one of said groups through an encapsulation-material-supplying path provided for said particular one of said groups so as to form said encapsulated body for said particular one of said groups in the aggregate.

9. A method of manufacturing a solid-state image sensing device according to claim 1, wherein said image sensors are each a CMOS

image sensor.

10. A method of manufacturing a solid-state image sensing device comprising the steps of:

(a) preparing a wiring substrate mother board having a first face and a second face on the side opposite to said first face;
(b) mounting first electronic components over said first face of said wiring substrate mother board;

(c) encapsulating said first electronic components by using an encapsulation body;

(d) mounting second electronic components including image sensors over said second face of said wiring substrate mother board; and

(e) joining a frame to said second face of said wiring substrate mother board so as to cover said second electronic components,

wherein said frame has a position adjustment pin for adjusting the position of said frame with respect to said wiring substrate mother board,

wherein said wiring substrate mother board has a through hole into which said position adjustment pin is to be inserted, and

wherein in said step (c), said encapsulation body is formed in such a way that said through hole is avoided.

11. A method of manufacturing a solid-state image sensing

device according to claim 10,

wherein said wiring substrate mother board has a plurality of module regions, and said step (c) is a step of forming said encapsulation body as a batch encapsulation body for encapsulating said first electronic components in said module regions in the aggregate.

12. A method of manufacturing a solid-state image sensing device according to claim 11, wherein a plurality of said batch encapsulation bodies is formed over said first face of said wiring substrate parent substrate with said batch encapsulation bodies being separated from each other.

13. A method of manufacturing a solid-state image sensing device according to claim 12, wherein a depression is formed in a portion of each of said batch encapsulation bodies.

14. A method of manufacturing a solid-state image sensing device according to claim 11, wherein in said step (c), said module regions are divided into a plurality of groups and a plurality of said first electronic components in each of said groups is encapsulated in the aggregate.

15. A method of manufacturing a solid-state image sensing device according to claim 14, wherein in said step (c), an

encapsulation material is supplied to any particular one of said groups through an encapsulation-material-supplying path provided for said particular one of said groups so as to form said encapsulated body for said particular one of said groups in the aggregate.

16. A method of manufacturing a solid-state image sensing device comprising the steps of:

(a) preparing a wiring substrate mother board having a first face and a second face on the side opposite to said first face;
(b) mounting first electronic components over said first face of said wiring substrate mother board;

(c) encapsulating said first electronic components by using an encapsulation body;

(d) mounting second electronic components including image sensors over said second face of said wiring substrate mother board;

(e) joining a frame to said second face of said wiring substrate mother board so as to cover said second electronic components;

(f) cutting out individual module regions from said wiring substrate mother board obtained as a result of said step (e);
and

(g) mounting a lens holder housing optical lens to said frame in each of said individual module regions obtained as a result of said step (f),

wherein said wiring substrate mother board has a plurality of said module regions,

wherein said frame has a position adjustment pin for adjusting the position of said frame with respect to said wiring substrate mother board,

said wiring substrate mother board has a through hole into which said position adjustment pin is to be inserted;

wherein said position adjustment pin and said through hole are provided outside a junction face between said frame and said wiring substrate mother board,

wherein said encapsulation body used in said step (c) is a batch encapsulation body for encapsulating said first electronic components in said module regions in the aggregate, and

wherein a plurality of said batch encapsulation bodies is formed over said wiring substrate mother board with said batch encapsulation bodies separated from each other to avoid said through hole.

17. A method of manufacturing a solid-state image sensing device according to claim 16, wherein said image sensors are each a CMOS image sensor.

18. A method of manufacturing a solid-state image sensing device comprising the steps of:

(a) preparing a wiring substrate mother board;
(b) mounting electronic components each including an image sensor formed therein over a component-mounting face of said wiring substrate mother board; and
(c) joining a frame to said component-mounting face of said wiring substrate mother board so as to cover said electronic components,

wherein said frame has a position adjustment pin for adjusting the position of said frame with respect to said wiring substrate mother board,

wherein said wiring substrate mother board has a through hole into which said position adjustment pin is to be inserted, and

wherein said position adjustment pin and said through hole are provided outside a junction face between said frame and said wiring substrate mother board.

19. A method of manufacturing a solid-state image sensing device according to claim 2, wherein a squeegee having comb teeth shape is used for coating said junction face of said frame with said bonding agent in such a way that said squeegee are not applied to said position adjustment pin.